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EXAMINER	
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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MARCUS W. MAY,
DANIEL P. MULLIGAN,
and MATTHEW BRADY HENSON

Appeal 2008-1596
Application 10/603,640
Technology Center 2800

Decided: October 30, 2008

Before JOSEPH F. RUGGIERO, MAHSHID D. SAADAT,
and CARLA M. KRIVAK, *Administrative Patent Judges.*

RUGGIERO, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134 from the Final Rejection of claims 1-30. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

Appellants' invention relates to the efficient powering of devices such as portable electronic equipment. (Spec. 1)

Claim 1 is illustrative of the invention and reads as follows:

> 1. A method for efficient battery use by a handheld multiple function device, the method comprises:
>
> monitoring at least one output for an overload condition;
>
> monitoring a system voltage produced by a DC-to-DC converter for a system low voltage condition;
>
> monitoring voltage of the battery for a battery low voltage condition; and
>
> enabling one of a plurality of fail safe algorithms based on when one or more of the overload condition, the system low voltage condition, and the battery low voltage condition are detected.

The Examiner relies on the following prior art references to show unpatentability:

Barker	US 3,609,504	Sep. 28, 1971
Patel	US 5,018,148	May 21, 1991
Choudhury	US 6,169,669 B1	Jun. 2, 2001
Urbano	US 6,592,521 B1	Jul. 15, 2003 (filed Mar. 1, 2000)

Claims 1, 5-8, 11, 12, 14-16, 20-23, 26, 27, 29, and 30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Urbano in view of Choudhury.

Claims 2, 9, 17, and 24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Urbano in view of Choudhury and Barker.

Claims 3, 4, 10, 13, 18, 19, 25, and 28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Urbano in view of Choudhury and Patel.

Rather than reiterate the arguments of Appellants and the Examiner, reference is made to the Brief and Answer for the respective details. Only those arguments actually made by Appellants have been considered in this decision. Arguments which Appellants could have made but chose not to make in the Brief have not been considered and are deemed to be waived [see 37 C.F.R. § 41.37(c)(1)(vii)].

ISSUES

(i) Under 35 U.S.C. § 103(a), with respect to appealed claims 1, 5-8, 11, 12, 14-16, 20-23, 26, 27, 29, and 30, would one of ordinary skill in the art at the time of the invention have found it obvious to combine Urbano and Choudhury to render the claimed invention unpatentable?

(ii) Under 35 U.S.C. § 103(a), with respect to appealed claims 2, 9, 17, and 24, would one of ordinary skill in the art at the time of the invention have found it obvious to modify the combination of Urbano and Choudhury by adding the teachings of Barker to render the claimed invention unpatentable?

(iii) Under 35 U.S.C. § 103(a), with respect to appealed claims 3, 4, 10, 13, 18, 19, 25, and 28, would one of ordinary skill in the art at the time of the invention have found it obvious to modify the combination of Urbano and Choudhury by adding the teachings of Patel to render the claimed invention unpatentable?

FINDINGS OF FACT

The relevant facts are:

1. Appellants have invented a method and apparatus for providing efficient battery use by a handheld multiple function device by monitoring various device conditions. The monitored device conditions include a device output for an overload condition, a system voltage produced by a DC-to-DC converter for a system low voltage condition, and the battery voltage for a low battery condition. One of a plurality of fail-safe algorithms is enabled based on a detection of one or more the monitored conditions. (Spec. 3:12-30).

2. Urbano discloses (col. 4, l. 59 through col. 5, l. 25 and col. 8, l. 66 through col. 9, l. 11) a power consumption reduction system for use in a multiple function handheld device which uses an uninterruptible power supply. Either an analog or digital control system is utilized for control of the power supply.

3. Choudhury discloses the detection of an overload in the form of an overcurrent fault condition (col. 4, ll. 59-61 and Figure 3), a detection of a low battery voltage (col. 4, ll. 30-34), and the detection of a system low voltage (col. 4, ll. 35-39).

4. Choudhury also discloses (col. 4, l. 64 through col. 5, l. 19 and col. 8, l. 58 through col. 9, l. 25) the enabling of fail safe control algorithms in response to the detected overload, low battery voltage, and system low voltage conditions.

PRINCIPLES OF LAW

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. *See In re Fine*, 837 F.2d 1071, 1073 (Fed. Cir. 1988). In so doing, the Examiner must make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966). "[T]he examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability." *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). Furthermore,

> there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness' . . . [H]owever, the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.

KSR Int'l Co. v. Teleflex Inc., 127 S. Ct. 1727, 1741 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

ANALYSIS

Appellants' arguments in response to the Examiner's obviousness rejection of representative independent claim 1 based on the combination of Urbano and Choudhury assert a failure by the Examiner to establish a prima facie case of obviousness since all of the claimed limitations are not taught

or suggested by the applied Urbano and Choudhury references.[1] Appellants initially attack (Br. 8) the Examiner's reliance on Urbano with the contention that, in contrast to the claimed invention, Urbano does not disclose the sensing of one or more of low battery, overload, or system low voltage conditions and initiating a fail safe algorithm in response.

To whatever extent, however, Appellants are suggesting that the Examiner's proposed combination of Urbano and Choudhury must fail since Urbano does not provide a disclosure of the sensing of particular system conditions, we find such contention to be without merit since the Examiner has relied upon Choudhury for this teaching. It is apparent from the Examiner's line of reasoning in the Answer that the basis for the obviousness rejection is the *combination* of Urbano and Choudhury. One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. *In re Keller,* 642 F.2d 413, 425 (CCPA 1981); *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986).

It is further noteworthy that Appellants do not dispute (Br. 9) the Examiner's stated position that Choudhury discloses the sensing of battery current Ib, the battery voltage Vb, and the voltage V- with respect to ground. We also find no arguments from Appellants which show any error in the Examiner's contention (Ans. 3, 4, 8, and 9) that these sensed conditions in fact correspond, respectively, to the claimed output overload, battery low voltage, and system low voltage conditions. This is confirmed by

[1] Appellants argue claims 1, 5-8, 11, 12, 14-16, 20-23, 26, 27, 29, and 30 together as a group. *See* Br. 7. Accordingly, we select claim 1 as representative. *See* 37 C.F.R. § 41.37(c)(1)(vii).

Choudhury's disclosure which describes the operation of an overcurrent fault detector 351 (col. 4, ll. 59-61 and Figure 3), as well as low battery voltage detection (col. 4, ll. 30-34), and system low voltage detection (col. 4, ll. 35-39). Appellants have further shown no error in the Examiner's finding (Ans. 4 and 8) that Choudhury's disclosure (col. 4, l. 64 through col. 5, l. 19 and col. 8, l. 58 through col. 9, l. 25) provides for the enabling of fail safe control algorithms in response to the detected conditions as claimed.

Appellants' further arguments (Br. 10) include a general allegation that the Examiner has not established a proper basis for the proposed combination of the Urbano and Choudhury references. In making this argument, Appellants again call attention to the supposed individual differences between the cited references and the claimed invention.

For all of the previously discussed reasons, however, we simply find no error in the Examiner's finding (Ans. 4 and 7) that the use of the digital fail safe control algorithm features associated with the uninterruptable power supply system of Choudhury would be recognized by the skilled artisan as an obvious enhancement to the uninterruptable power supply system of the handheld multiple function device of Urbano.

In our view the Examiner's proffered combination of Urbano and Choudhury reasonably teaches and/or suggests Appellants' claimed invention in terms of familiar elements that would have been combined by an artisan having common sense using known methods to achieve a predictable result. "'The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.'" *Leapfrog Enter., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1161 (Fed. Cir. 2007) (quoting *KSR*, 127 S. Ct. at 1739).

Accordingly, for all of the above reasons, since Appellants have not persuaded us of any error in the Examiner's stated position, the Examiner's 35 U.S.C. § 103(a) rejection, based on the combination of Urbano and Choudhury, of representative claim 1, as well as claims 5-8, 11, 12, 14-16, 20-23, 26, 27, 29, and 30 not separately argued by Appellants, is sustained.

We also sustain the Examiner's obviousness rejections of dependent claims 2-4, 9, 10, 13, 17-19, 24, 25, and 28 in which the teachings of the secondary references to Barker and Patel are applied in separate combinations with the combined teachings of Urbano and Choudhury. Appellants have made no separate arguments as to the patentability of these claims but, rather, has relied on arguments previously made with respect to representative independent claim 1, which arguments we found to be unpersuasive for all of the reasons discussed *supra*.

CONCLUSION OF LAW

Based on the findings of facts and analysis above, we conclude that Appellants have not shown that the Examiner erred in rejecting claims 1-30 for obviousness under 35 U.S.C. § 103.

DECISION

The Examiner's 35 U.S.C. § 103 rejection of claims 1-30, all of the appealed claims, is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

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